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D.T. Light-Post Fiber Post System (Project 05-07) (1/06)

The D.T. Light-Post is a translucent, radiopaque, quartz-fiber post system that may blend more naturally with a composite core material, especially with all-ceramic restorations. The post comes in four diameters and features a double-taper design that reportedly provides better adaptation to a prepared canal. Fiber-optic construction purportedly allows light to be transmitted through the post so it can be cemented with light- or dual-cured materials. The System Package comes with twenty posts, four drills, One-Step Plus adhesive, etchant gel, Duo-Link resin cement and Light-Core composite resin core material. Duo-Link is a filled, dual-cured, radio-apparent, composite luting cement available in an auto-mix dual-syringe delivery system. Light-Core is a radiopaque, light-cured, core build-up composite material that provides a 5 mm depth of cure.

Manufacturer:

Bisco, Inc.
1100 W. Irving Park Rd
Schaumburg, IL 60193
(800) 247-3368
(847) 534-6000
(800) 959-9550 FAX
www.bisco.com



Suggested Retail Price:

\$335.00 System Package (item #G-91320K) contains:

- 20 posts (five each, sizes 0.5, 1, 2, 3)
- Drills (one each, sizes 1, 2, 3, preshaping)
- One-Step Plus adhesive
- Duo-Link resin cement
- Light-Core composite core material (translucent or blue)
- Etchant, mixing tips and brushes

Government Price:

\$234.50 System Package (item number and contents as listed above)

ADVANTAGES:

- + Esthetic under all-ceramic restorations
- + Posts available in four sizes
- + System Package comes complete with posts, bonding agent, resin cement, and composite core material
- + Favorable price compared with other fiber-post systems
- + Light-curable composite core available in two shades (translucent, blue)
- + Automix delivery system simplifies placement of resin cement
- + Dual-curing capability assures adequate polymerization of resin cement
- + Adequate working time of resin cement
- + Translucent core material may be light-cured in bulk (5 mm) and immediately prepared
- + Adequate radiopacity of posts, resin cement and core material
- + Color-coded drills and posts simplifies identification
- + Lot number and expiration date provided on box, syringes and bottles
- + Material Safety Data Sheets included in kit

DISADVANTAGES:

- Longer-term clinical studies of quartz-fiber posts necessary
- Multi-step resin-cementation technique
- Light-cured bonding agent may be difficult to adequately polymerize in canal

SUMMARY AND CONCLUSIONS:

The D.T. Light-Post is a translucent, radiopaque, quartz-fiber post system that may blend esthetically with a composite core material, especially under all-ceramic restorations. The System Package comes complete with posts, bonding agent, resin cement, and composite core material. The double-taper post comes in four diameters to accommodate a variety of teeth or canal sizes. According to the manufacturer, the fiber-optic construction purportedly allows light to be transmitted through the post so it can be cemented with light- or dual-cured materials, however, laboratory studies recommend the use of dual-cured systems to assure adequate polymerization. The evaluators found the working time of the resin cement to be adequate and placement was simplified with the automix delivery system. Laboratory testing found the translucent composite core material was easily light-cured up to 5 mm in depth and that the posts, resin cement and core material were of adequate radiopacity. Initial clinical studies of fiber post systems seem promising, however, longer-term follow-up is necessary. The unanswered question is whether having a flexible post allows movement of the core, resulting in increased microleakage under the crown, especially when restoring teeth with minimal remaining tooth structure. Most of the providers rated the D.T. Light-Post system as "excellent" overall and would consider its purchase for use in their clinic. **D.T. Light-Post** is rated **Acceptable** for use in US Air Force dental facilities.